\_\_\_\_\_\_

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)

217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2011; month=4; day=26; hr=12; min=48; sec=20; ms=994; ]

\_\_\_\_\_

# Validated By CRFValidator v 1.0.3

Application No: Version No: 09350401 4.0

56

Input Set:

Output Set:

**Started:** 2011-04-14 16:39:22.336 Finished: 2011-04-14 16:39:52.260

Elapsed: 0 hr(s) 0 min(s) 29 sec(s) 924 ms

Total Warnings: 3879 Total Errors:

No. of SeqIDs Defined: 3879

> Actual SeqID Count: 3879

Error code		Error Description										
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(4)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(9)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(18)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(19)	
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(20)	

## Input Set:

## Output Set:

**Started:** 2011-04-14 16:39:22.336

**Finished:** 2011-04-14 16:39:52.260

**Elapsed:** 0 hr(s) 0 min(s) 29 sec(s) 924 ms

Total Warnings: 3879
Total Errors: 56

No. of SeqIDs Defined: 3879

Error Description

Error code

341

257

Ε

Ε

Actual SeqID Count: 3879

#### This error has occured more than 20 times, will not be displayed 251 W Found intentionally skipped sequence in SEQID (1197 ) 341 Ε 'Xaa' position not defined SEQID (3275) POS (4) Ε 341 'Xaa' position not defined SEQID (3314) POS (5) Ε 341 'Xaa' position not defined SEQID (3315) POS (4) 341 Ε 'Xaa' position not defined SEQID (3316) POS (3) 341 Ε 'Xaa' position not defined SEQID (3318) POS (8) 'Xaa' position not defined Ε 341 SEQID (3319) POS (3) 341 Ε 'Xaa' position not defined SEQID (3320) POS (4) 341 Ε 'Xaa' position not defined SEQID (3322) POS (6) 'Xaa' position not defined Ε 341 SEQID (3323) POS (5) Ε 341 'Xaa' position not defined SEQID (3324) POS (4) Ε 341 'Xaa' position not defined SEQID (3325) POS (7) Ε 341 'Xaa' position not defined SEQID (3326) POS (9) 341 Ε 'Xaa' position not defined SEQID (3327) POS (4) Ε 341 'Xaa' position not defined SEQID (3328) POS (5) Ε 341 'Xaa' position not defined SEQID (3329) POS (6) 341 Ε 'Xaa' position not defined SEQID (3330) POS (3) Ε 341 'Xaa' position not defined SEQID (3331) POS (4) Ε 341 'Xaa' position not defined SEQID (3381) POS (5)

SEQID (3382)

Invalid sequence data feature in <221> in SEQ ID (3416)

POS (6)

'Xaa' position not defined

## Input Set:

# Output Set:

**Started:** 2011-04-14 16:39:22.336 Finished: 2011-04-14 16:39:52.260

Elapsed: 0 hr(s) 0 min(s) 29 sec(s) 924 ms

Total Warnings: 3879 Total Errors: 56

No. of SeqIDs Defined: 3879 Actual SeqID Count: 3879

Error code		Error Description										
E	257	Invalid sequence data feature in <221> in SEQ ID (3417)										
E	341	'Xaa' position not defined SEQID (3417) POS (10) This error has occured more than 20 times, will not be displayed										
E	257	Invalid sequence data feature in <221> in SEQ ID (3418)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3419)										
Ε	257	Invalid sequence data feature in <221> in SEQ ID (3420)										
Ε	257	Invalid sequence data feature in <221> in SEQ ID (3421)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3422)										
Ε	257	Invalid sequence data feature in <221> in SEQ ID (3423)										
Ε	257	Invalid sequence data feature in <221> in SEQ ID (3424)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3425)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3426)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3427)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3428)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3429)										
Ε	257	Invalid sequence data feature in <221> in SEQ ID (3430)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3431)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3432)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3433)										
E	257	Invalid sequence data feature in <221> in SEQ ID (3877)										

### SEQUENCE LISTING

<110> Alessandro Sette

John Sidney

Scott Southwood

Maria A. Vitiello

Brian D. Livingston

Esteban Celis

Ralph T. Kubo

Howard M. Grey

Robert Chesnut

<120> INDUCING CELLULAR IMMUNE RESPONSES TO HEPATITIS B VIRUS USING PEPTIDE COMPOSITIONS

<130> 2473.0060008

<140> 09350401

<141> 1999-07-08

<150> US 08/344,824

<151> 1994-11-23

<150> US 08/278,634

<151> 1994-07-21

<150> US 08/347,610

<151> 1994-12-01

<150> US 08/159,339

<151> 1993-11-29

<150> US 08/103,396

<151> 1993-08-06

<150> US 08/027,746

<151> 1993-03-05

<150> US 07/926,666

<151> 1992-08-07

<150> US 09/239,043

<151> 1999-01-27

<150> US 08/205,713

<151> 1994-03-04

<150> US 08/159,184

<151> 1993-11-29

<150> US 08/073,205

<151> 1993-06-04

<150> US 08/027,146

```
<151> 1993-03-05
<150> US 09/189,702
<151> 1998-11-10
<150> US 08/820,360
<151> 1997-03-12
<150> US 60/013,363
<151> 1996-03-13
<150> US 08/197,484
<151> 1994-02-16
<150> US 07/935,811
<151> 1992-08-26
<150> US 07/874,491
<151> 1992-04-27
<150> US 07/827,682
<151> 1992-01-29
<150> US 08/978,291
<151> 1997-11-25
<150> US 08/461,603
<151> 1995-06-05
<160> 3879
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 1
Ala Ile Cys Ser Val Val Arg Arg Ala Phe
               5
<210> 2
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
```

<400> 2

```
<210> 3
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 3
Ala Met Gln Trp Asn Ser Thr Thr Phe
<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 4
Ala Ser Phe Cys Gly Ser Pro Tyr
   5
1
<210> 5
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 5
Ala Ser Phe Cys Gly Ser Pro Tyr Ser Trp
1 5
<210> 6
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 6
Ala Ser Lys Leu Cys Leu Gly Trp
<210> 7
```

<211> 10

Ala Leu Arg Gln Ala Ile Leu Cys Trp

1 5

```
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 7
Ala Ser Lys Leu Cys Leu Gly Trp Leu Trp
<210> 8
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 8
Ala Ser Pro Leu His Val Ala Trp
1
<210> 9
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 9
Cys Ile Pro Ile Pro Ser Ser Trp
<210> 10
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 10
Cys Ile Pro Ile Pro Ser Ser Trp Ala Phe
1
                 5
                                    10
<210> 11
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
```

```
<400> 11
Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr
<210> 12
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 12
Cys Leu Arg Arg Phe Ile Ile Phe
               5
<210> 13
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 13
Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe
          5
<210> 14
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 14
Cys Ser Val Val Arg Arg Ala Phe
1
                5
<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 15
Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp
               5
1
                                  10
```

```
<210> 16
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 16
Asp Ile Asp Pro Tyr Lys Glu Phe
               5
<210> 17
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 17
Asp Leu Leu Asp Thr Ala Ser Ala Leu Tyr
                5
                                   10
<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 18
Asp Ser Trp Trp Thr Ser Leu Asn Phe
                 5
1
<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 19
Glu Leu Leu Ser Phe Leu Pro Ser Asp Phe
                                   10
<210> 20
<211> 11
<212> PRT
<213> Artificial Sequence
```

```
<223> Artificially Synthesized Peptide
<400> 20
Glu Leu Leu Ser Phe Leu Pro Ser Asp Phe Phe
               5
                                  10
<210> 21
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 21
Glu Ser Arg Leu Val Val Asp Phe
<210> 22
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 22
Glu Ser Arg Leu Val Val Asp Phe Ser Gln Phe
               5
1
<210> 23
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 23
Phe Ile Leu Leu Cys Leu Ile Phe
<210> 24
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 24
Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe
```

<220>

1 5 10

```
<210> 25
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 25
Phe Leu Leu Val Leu Leu Asp Tyr
<210> 26
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 26
Phe Ser Pro Thr Tyr Lys Ala Phe
1
                5
<210> 27
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 27
Phe Ser Ser Ala Gly Pro Cys Ala Leu Arg Phe
1
<210> 28
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 28
Phe Ser Trp Leu Ser Leu Leu Val Pro Phe
       5
```

<210> 29 <211> 10

```
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 29
Phe Thr Phe Ser Pro Thr Tyr Lys Ala Phe
<210> 30
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 30
Phe Val Gly Leu Ser Pro Thr Val Trp
                 5
<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 31
Gly Leu Leu Gly Phe Ala Ala Pro Phe
<210> 32
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 32
Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe
                5
<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
```

<212> PRT

```
<400> 33
Gly Met Asp Ile Asp Pro Tyr Lys Glu Phe
<210> 34
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 34
Gly Val Trp Ile Arg Thr Pro Pro Ala Tyr
                 5
                                   10
<210> 35
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 35
His Leu Asn Pro Asn Lys Thr Lys Arg Trp
<210> 36
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 36
His Leu Tyr Ser His Pro Ile Ile Leu Gly Phe
1
               5
                                   10
<210> 37
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 37
His Thr Ala Glu Leu Leu Ala Ala Cys Phe
1
               5
                                  10
```

```
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 38
His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp
               5
                                  10
<210> 39
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 39
His Thr Leu Trp Lys Ala Gly Ile Leu Tyr
               5
<210> 40
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 40
Ile Leu Leu Cys Leu Ile Phe
      5
<210> 41
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 41
Ile Leu Arg Gly Thr Ser Phe Val Tyr
<210> 42
<211> 11
<212> PRT
```

<213> Artificial Sequence

<210> 38

```
<223> Artificially Synthesized Peptide
<400> 42
Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp
               5
                                 10
<210> 43
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 43
Ile Val Gly Leu Leu Gly Phe Ala Ala Pro Phe
<210> 44
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 44
Lys Ile Pro Met Gly Val Gly Leu Ser Pro Phe
        5
1
                                  10
<210> 45
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 45
Lys Leu Cys Leu Gly Trp Leu Trp
           5
<210> 46
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
```

<220>

<400> 46

```
1
<210> 47
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 47
Lys Leu Ile Met Pro Ala Arg Phe Tyr
<210> 48
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 48
Lys Leu Pro Val Asn Arg Pro Ile Asp Trp
1
     5
                       10
<210> 49
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 49
Lys Thr Lys Arg Trp Gly Tyr Ser Leu Asn Phe
   5
<210> 50
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 50
Lys Val Gly Asn Phe Thr Gly Leu Tyr
1
```

Lys Leu Ile Met Pro Ala Arg Phe

```
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 51
Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr
        5
<210> 52
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 52
Leu Ile Met Pro Ala Arg Phe Tyr
1
<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 53
Leu Leu Asp Thr Ala Ser Ala Leu Tyr
               5
<210> 54
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 54
Leu Leu Gly Cys Ala Ala Asn Trp
               5
<210> 55
<211> 8
<212> PRT
<213> Artificial Sequence
```

```
<223> Artificially Synthesized Peptide
<400> 55
Leu Leu Gly Phe Ala Ala Pro Phe
               5
<210> 56
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 56
Leu Leu Pro Ile Phe Phe Cys Leu Trp
1
<210> 57
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 57
Leu Leu Pro Ile Phe Phe Cys Leu Trp Val Tyr
               5
                                  10
<210> 58
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 58
Leu Leu Ser Phe Leu Pro Ser Asp Phe
               5
<210> 59
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 59
Leu Leu Ser Phe Leu Pro Ser Asp Phe Phe
1
                 5
```

```
<210> 60
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 60
Leu Leu Ser Ser Asn Leu Ser Trp
1
      5
<210> 61
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 61
Leu Leu Val Leu Gln Ala Gly Phe
               5
<210> 62
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 62
Leu Leu Val Leu Gln Ala Gly Phe Phe
<210> 63
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 63
Leu Leu Val Pro Phe Val Gln Trp
                 5
<210> 64
<211> 9
```

<212> PRT

```
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 64
Leu Leu Val Pro Phe Val Gln Trp Phe
               5
1
<210> 65
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 65
Leu Leu Trp Phe His Ile Ser Cys Leu Thr Phe
               5
                                  10
<210> 66
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 66
Leu Ser Phe Leu Pro Ser Asp Phe
         5
<210> 67
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 67
Leu Ser Phe Leu Pro Ser Asp Phe Phe
1
                5
<210> 68
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
```

```
<400> 68
Leu Ser Leu Asp Val Ser Ala Ala Phe
1
<210> 69
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 69
Leu Ser Leu Asp Val Ser Ala Ala Phe Tyr
           5
<210> 70
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 70
Leu Ser Leu Leu Val Pro Phe Val Gln Trp
         5
                                  10
<210> 71
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 71
Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe
1
                5
                                   10
<210> 72
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 72
Leu Ser Leu Arg Gly Leu Pro Val Cys Ala Phe
               5
                                  10
```

```
<210> 73
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 73
Leu Ser Pro Phe Leu Leu Ala Gln Phe
               5
<210> 74
<211> 11
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 74
Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp
               5
                                   10
<210> 75
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 75
Leu Ser Arg Lys Tyr Thr Ser Phe
                5
1
<210> 76
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 76
Leu Ser Arg Lys Tyr Thr Ser Phe Pro Trp
                                   10
<210> 77
<211> 9
<212> PRT
```

<213> Artificial Sequence

```
<220>
<223> Artificially Synthesized Peptide
<400> 77
Leu Ser Val Pro Asn Pro Leu Gly Phe
<210> 78
<211> 11
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 78
Leu Thr Phe Gly Arg Glu Thr Val Leu Glu Tyr
<210> 79
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 79
Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp
                5
1
<210> 80
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 80
Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp
<210> 81
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 81
Leu Thr Asn Leu Leu Ser Ser Asn Leu Ser Trp
```

1 5 10

```
<210> 82
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Artificially Synthesized Peptide
<400> 82
Leu Val Leu Gln Ala Gly Phe Phe
<210> 83
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 83
Leu Val Pro Phe Val Gln Trp Phe
1
               5
<210> 84
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 84
Leu Val Val Asp Phe Ser Gln Phe
1
<210> 85
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificially Synthesized Peptide
<400> 85
Met Met Trp Tyr Trp Gly Pro Ser Leu Tyr
      5
```

<210> 86 <211> 9

```
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Peptide

<400> 86

Met Ser Thr Thr Asp Leu Glu Ala Tyr

1 5

<210> 87
<211> 10
<212> PRT
```

<213> Artificial Sequ